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CONTINUING "THE ELEMENTARY SCHOOL TEACHER"

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EDUCATIONAL NEWS AND EDITORIAL COMMENT

Vacation Schools

Many school systems are at this time planning the organization of vacation schools. A few of the items that indicate the scope of this work may be quoted as follows. Detroit has planned to open five buildings this summer instead of three, as was the case last year (*Detroit Journal*). Baltimore will also increase the number of its vacation schools (*Baltimore News*). St. Paul, Minnesota, has taken steps to insure opportunities for summer schooling (*St. Paul News*). Mason City, Iowa, will try the experiment of the "year-round" school, providing four terms of twelve weeks each in the year (*Burlington, Iowa, Hawkeye*). St. Louis has opened the largest open-air school in the United States. The session will be every week in the year and school will also be held on Saturday (*St. Louis Times*). Not more than three hours of the day will be devoted to academic work. The rest of the time will be devoted to industrial work and play. The school opens at 8 A.M. and closes at 3 P.M.

In the meantime, the city of Chicago is having a vigorous discussion as to the possibilities of continuing the vacation schools which for some years have been carried on by the Board of Education. Indeed, Chicago is suffering at the present time from a contest regarding school expenditures. Some members of the board and the superintendent seem to be in doubt as to the extent to which the schools are facing financial difficulty. All sorts of

expedients of economy are being discussed. Either the teachers' salaries are to be reduced or some kinds of school activities are to be closed up. Among the activities listed for suspension are the vacation schools.

Junior High Schools

Indications continue to come from different parts of the country showing that the junior high-school movement is progressing. At a recent meeting of superintendents of leading Kansas cities it was decided to organize the seventh, eighth, and ninth grades as an intermediate school. As a part of the program it was decided that it is desirable to introduce prevocational subjects into the grades.

The *Salt Lake City Tribune* reports from that city that the superintendent of schools has recommended the extension of the junior high-school plan to twelve of the principal grade schools of Salt Lake City. The system has been in operation experimentally for several years in four of the larger schools and has proved successful.

The *Chronicle* of Spokane reports that at a recent meeting of the Inland Empire Teachers' Association a resolution was adopted recognizing the principal of differentiation at the seventh grade. This resolution favored the general plan commonly known as the six-six plan.

The request is frequently made that the course of study appropriate for a junior high school be given in detail. One of the earliest experiments in organizing such schools was at Concord, New Hampshire. In reply to an inquiry for the course of study, the accompanying schedule was sent to the *Journal* and may be of value to those who are organizing such courses.

Combination of Kindergarten and Primary Grades

The possibility of making a combination of the kindergarten and the primary grades has frequently been discussed. The advantages of this sort of arrangement are obvious to all who are not so wedded to the kindergarten that they regard that institution as entirely separate from the rest of the school. It is, however, difficult to bring about a real amalgamation between the kindergarten and the first grades. The following statement made

PROGRAM OF STUDIES, CONCORD HIGH SCHOOL

JUNIOR HIGH SCHOOL

Course I: Classical	Course II: Academic	Course III: Commercial	Course IV: Mechanic Arts—Boys	Course V: Domestic Arts—Girls	
English Literature ..... 5 Arithmetic and Algebra .... 5 Latin ½ year ..... } 5 English Grammar and Composition ½ year ..... } United States History ..... 5 Manual Training Sewing Cooking	English Literature ..... 5 Arithmetic and Algebra ... 5 English Grammar and Composition ..... 5 United States History ..... 5 Manual Training Sewing Cooking	English Literature ..... 5 Arithmetic and Algebra ... 5 English Grammar and Composition ..... 5 United States History ..... 5 Penmanship (2) ..... 1 Manual Training Sewing Cooking	English Literature ..... 5 Arithmetic and Algebra ... 5 English Grammar and Composition ..... 5 United States History ..... 5 Mechanic Arts ..... 6 *a*) Mechanical Drawing *b*) Elementary Cabinet Work	English Literature ..... 5 Arithmetic and Algebra ... 5 English Grammar and Composition ..... 5 United States History ..... 5 Domestic Arts ..... 4 *a*) Plain Cooking *b*) Sewing	SEVENTH GRADE
English ..... 5 Mathematics (Myers I) .... 5 Ancient History ..... 5 Latin 5	English ..... 5 Mathematics (Myers I) ... 5 French ..... 5 Ancient History 5	English ..... 5 Mathematics (Myers I) ... 5 Commercial Geography and History ..... 5 Rhetoric ..... 4 Penmanship (2) 1	English ..... 5 Mathematics (Myers I) ... 5 Ancient History ..... 5 Mechanic Arts ..... 6 *a*) Mechanical Drawing *b*) Woodwork	English ..... 5 French ..... 5 Music and Art ..... 5 Domestic Arts ..... 5 *a*) Plain Cooking and Appliances *b*) Dressmaking and Design *c*) Millinery *d*) Embroidery	EIGHTH GRADE

SENIOR HIGH SCHOOL

English ..... 5 Mathematics ..... 5 Latin ..... 5 Greek or German or French 5	English ..... 5 French or German ..... 5 Mathematics or Mediaeval and Modern History .... 5 Biology 5	English ..... 5 Bookkeeping ..... 5 Commercial Arithmetic ½ year ..... } 5 Stenography and Typewriting ½ year ..... } French or Mathematics or Mediaeval and Modern History 5	English ..... 5 Mathematics ..... 5 French or Biology ..... 5 Mechanic Arts ..... 6 *a*) Mechanical Drawing *b*) Pattern-making *c*) Forging	English ..... 5 French or German ..... 5 Music and Art ..... 5 Domestic Arts ..... 5 *a*) Household Appliances *b*) Household Sanitation and Hygiene *c*) Dressmaking and Design	NINTH GRADE
English ..... 5 Latin ..... 5 Greek or German or French 5 Physics or History 5	English ..... 5 French or German ..... 5 Physics ..... 5 English History ..... 5 or Review Mathematics 4	English ..... 5 Bookkeeping ..... 5 French or English History 5 Stenography and Typewriting ..... 6 or Physics 5	English ..... 5 Physics ..... 5 French or English History 5 Mechanic Arts ..... 6 *a*) Mechanical Drawing *b*) Machine Shop Practice	English ..... 5 French or German ..... 5 Music and Art ..... 5 Domestic Arts ..... 5 *a*) Physiology (scientific) *b*) Nursing	TENTH GRADE
English ..... 4 United States History ..... 4 Latin ..... 5 Greek or German or French 5 Review Mathematics 4	English ..... 4 United States History ..... 4 French or German ..... 5 Economics, Commercial Law, or Advanced Mathematics ..... 4 Chemistry 5	English ..... 4 United States History ..... 4 French ..... 5 or Bookkeeping ..... 4 Economics ½ year ..... } 4 Commercial Law ½ year ... } Stenography and Typewriting ..... 6 or Chemistry 5	English ..... 4 United States History ..... 4 Chemistry ..... 5 Review Mathematics ..... 4 Mechanic Arts ..... 6 *a*) Mechanical Drawing *b*) Machine Shop Practice	English ..... 5 French or German ..... 5 Music and Art ..... 5 Domestic Arts ..... 5 *a*) Cooking (analytic) *b*) Household Economics *c*) Household Design and Decoration	ELEVENTH GRADE

in a kindergarten letter published by the Bureau of Education shows the progress of an experiment in Boston.

In the spring of 1913 Dr. Franklin B. Dyer, superintendent of schools in Boston, called for volunteers from among the kindergartners to try the experiment of doing advanced kindergarten work with the children of the primary grades for two afternoons a week. The response was immediate and cordial; in September there were 49 kindergartners at work at this problem in 30 school districts, with the children of 60 primary classes.

The organization varied somewhat, but the most common arrangement was for the kindergartner to take one division of the lowest primary grade for the first hour of the afternoon session and the other division for the second hour of the session, reversing the order of the divisions on the second day. Occasionally her work was with only the lower divisions of the two first grades, and again it extended into a second grade.

Great freedom was allowed in the choice of activities and arrangement of the program, though at Dr. Dyer's request all the teachers gave ample opportunity for the free conversations familiar in the kindergarten, but often lacking in the primary classes, with their larger numbers and more formal procedure. Advanced gift and hand-work were used in most classes, the former for free construction and for number work, the latter for hand-training and for free expression of experiences, drawing and paper-cutting proving especially valuable in this work. Games were played, stories were told, and many delightful excursions were taken to woods and parks and farms and beaches, both stories and excursions furnishing rich supplies of material for conversations and expression through hand-work.

The remainder of the letter is devoted to quotations from various reports made by teachers who have had experience with the experiment. All of them indicate that the results have been beneficial.

The School Lunch Movement

The movement to furnish inexpensive lunches to school children is gaining ground and at present practically all of our large cities and many of the smaller ones are serving lunches at cost to at least a portion of their pupils. The *Journal of the American Medical Association* in a recent publication says of the movement:

School lunches have become established in a large number of our cities, and a defense for their institution is now unnecessary. The maintenance of such a service is no longer defended solely on the basis of the needs of the poorer classes, but is encouraged in ways to avert the criticism that the school lunch leads to pauperizing and to the neglect of maternal responsibility in

the home. The unquestioned benefits of a well-chosen warm lunch, usually supplied at the cost of the materials and service, have impressed both teachers and parent, so that even the well-to-do commend and approve this latest innovation in the routine of the school day. As a rule, the school lunchroom provides better food than the street vender. In most places the foods are chosen by persons trained in the field of dietetics, and the variety of dietary articles offered at one cent a portion is frequently quite impressive. It includes soups, salads, sandwiches, fruits, puddings, and other dishes. The New York School Lunch Committee in co-operation with the Bureau of Welfare of School Children of the Association for Improving the Condition of the Poor, for example, has maintained a service available to over 24,000 children in seventeen public schools situated in districts in which the need of such service is pressing. The registration has run as high as 2,353. In addition to this noon warm lunch service, the committee has operated a special 3-cent warm lunch of milk and crackers at 10 A.M. for anaemic, ungraded, and crippled classes. It begins to appear that the school lunch movement has engendered certain features which promise to contribute to the general welfare in a direction almost as important as that of the proper nourishment of the body. Educational and social possibilities, at first unforeseen, are being brought to notice. The children of the well-to-do parents and the children of the poor have learned "to sit quietly as one family, to talk pleasantly with each other, to eat their food properly; and many acts of courtesy and generosity have been encouraged." The appeal which the school lunches have made has not infrequently been manifested by mothers who have had their interest in respect to special foods and dietary procedures aroused. Thus the school lunch scheme has fostered educational and social as well as economic purposes.

County Supervision and Administration

The movement to make the county the unit in the supervision and administration of rural schools is spreading. The United States Bureau of Education reports that Texas has recently passed a law providing that the general management and control of the public schools of each county shall be vested in five county school trustees elected by the people for four-year terms. These trustees are given power to fix subdistrict lines, to determine the location of high schools, to consolidate schools, and have the general control of the instructional work, conforming to regulations of the state department of education. The bill takes effect immediately. The Senate has passed a bill providing for the selection of the county superintendent of schools by the county school trustees, for a term of two years, at a salary fixed by the board of trustees,

maximum $2,500. Counties of less than 2,000 school population might organize in groups (provided the combined school population should not exceed 3,000) and through the joint action of the boards of trustees select a county superintendent for the combined territory.

Utah has also recently passed a law extending the county unit of administration to all counties in the state. Eight counties had adopted the county unit in accordance with the provisions of the permissive law of 1905. Under the provisions of this new bill all counties must now adopt the county unit system of administration of rural schools.

Standards of Business Education

Increasing efforts are being made to analyze in a detailed way the needs of the community as a basis for a scientifically organized curriculum in the public schools. An example comes to hand from a letter recently issued by the United States Bureau of Education. A national committee, made up of representatives of leading organizations of business men and educators, has been incorporated, with the object of effecting a league of commercial schools (public and private) in co-operation with local organizations of business men for the purpose of placing commercial education on a more practical and scientific basis through the adoption of definite standards.

The employment managers of a number of large firms, among whose employees careful studies have been made, agree that the following requirements are indispensable for all beginners in the office (office boys and others of similar grade):

1. Ability to copy addresses accurately in legible handwriting.

2. Accuracy and some speed in adding, subtracting, multiplying, and dividing whole numbers, decimals, and the few easy fractions common in business.

3. Ability to spell a few hundred words common in business; to recognize and punctuate a sentence; and to correct a few of the grosser errors in grammar, use of words, and pronunciation.

For the suggested preliminary test in spelling, Dr. Ayres of the Russell Sage Foundation has formulated a list of 542 words that constituted seven-eighths of all the words in 2,000 business, professional, and social letters.

The foregoing attainments are suggested as prerequisites for admission alike to the business office as a beginner, and to any commercial course. After the completion of the commercial course in public or private school, there should be a series of advanced tests designed to demonstrate the following:

1. Knowledge of short cuts in arithmetic; habitual accuracy in handling figures, not below 95 per cent with a certain minimum speed, clerica accuracy as well as intelligence in filling out business forms, as the foundation upon which bookkeeping skill can be built up.

2. Accuracy on the typewriter approximating 99 per cent, with a speed of 20 to 35 words a minute (ability to use the typewriter is desirable for all office employees, and even salespersons); for stenographers, a speed of 100 words per minute in taking dictation, and ability to transcribe notes without making gross blunders, and not more than 2 or 3 minor errors per 100 words.

3. Ability to spell 75 to 90 per cent of words like those in an advanced list suggested by the committee and the habit of referring to the dictionary in all cases of doubt; to punctuate properly common business matter; to correct ordinary errors of grammar involving agreement of subject and predicate, reference of pronouns, relation of participial phrases and subordinate clauses, etc.

The National Committee has prepared a new set of tests of the type suggested above. Copies may be obtained upon application to the United States Bureau of Education.

School Surveys

Several surveys are under way which deserve special comment. In the city of Minneapolis the National Society for the Promotion of Industrial Education is carrying on a survey which will be made the subject of discussion at the next annual meeting of the society. This survey is being kept in the closest relation with the industrial side of the Cleveland survey. The two surveys are undertaking to elaborate in a much more complete fashion the analysis of the industries which was commenced in the Richmond survey. The Minneapolis survey is under the general direction of Mr. Prosser. The Cleveland survey is under the direction of Dr. Ayres of the Russell Sage

Foundation. Salt Lake City has undertaken a general survey of its school system under the leadership of Professor Cubberley. This work is to be done during the months of May and June.

Commission to Study Defectives

In accordance with a concurrent resolution of both houses of the Arkansas legislature, the governor has recently appointed an unpaid commission to investigate the conditions and needs of the feeble-minded in the state. The resolution for the commission was introduced after a special committee composed of representatives from both houses attended a lecture on the feeble-minded given by Alexander Johnson of the Vineland Training School.

Mr. Johnson has promised his hearty co-operation and will probably spend several months in Arkansas during the fall and winter.

It is probable that the federal Children's Bureau, which is doing some research work along these lines, will co-operate with the commission and extension department.

The plan as now outlined is to make a wide inquiry by questionnaire, followed by an intensive canvass of certain sections of the state, which will include the testing of many school children and others. This will be accompanied, or followed, by a publicity campaign to include public lectures, newspaper work, the formation of local committees and the like, the whole leading up to the presentation of a bill to the next session of the legislature to create an institution for all classes of mental defectives except the insane.

There are at present more than 100 feeble-minded persons in the state hospital for the insane, since the law allows counties whose full quota of insane patients in the hospital is not full to send feeble-minded persons there.

Not only does this afford too limited institutional provision for the probable number of feeble-minded individuals in the state, but also such an institution does not provide the proper care and training for these persons, where, no doubt, they are a conflicting and disturbing element.

Studies of Tenure in Louisiana

The question of the tenure of teachers is one that is deserving of the most careful attention of educators. Throughout the country, except in large cities, our teaching population is of a very migratory character. The teachers are continually wandering from place to place, if they remain in the profession itself long enough to do so.

A recent investigation in Louisiana, excluding New Orleans, sets forth quite clearly the situation in that state. The following facts regarding tenure are of interest.

Ten years, or more	2.14
Five years, only	2.76
Three years, only	9.49
One year, only	54.07

Thus it is seen that, as was pointed out in the investigation, "excluding the beginners who are teaching their first session, these figures show that more than 40 per cent of the teachers in the state outside of New Orleans, swap positions in every year."

These facts most certainly indicate a condition that should not exist, for it is undoubtedly true that the usefulness of a teacher grows as she comes to have a better understanding of the community that she serves. If school authorities would only realize this fact, they would make greater efforts to hold good teachers.

Legislative Hearings in Illinois

Before this item comes to its readers some action will probably have been taken by the legislature of Illinois on the bills on industrial education which are being considered by committees of both the House and the Senate. In both branches of the legislature the bill commonly known as the Commercial Club bill has been introduced, and also a bill from the Teachers' Association. The former aims to set up a dual school system, while the latter sets up a unified school system and supplies funds for the enlargement of industrial work. Both bills agree in that they provide for special boards to supervise the activities of industrial education. The bills differ radically in the fact that the Commercial Club bill, drafted by Mr. Cooley, provides for a separate state superintendent, separate funds, separate buildings, and a separate organization in general. The German analogy on which Mr. Cooley based his pleas in earlier days for the passage of this bill has not been pushed this year as emphatically as formerly. The Wisconsin plan has been frequently cited as an example of a successful system operating under the dual plan. Attention has frequently been called at the hearings to the fact that the Wisconsin plan does not provide for a separate organization in the sense in

which the Commercial Club bill provides for separation. For example, in the state of Wisconsin the chief state officer is recommended by the state superintendent of education and acts as a deputy in the superintendent's office. It is proposed by the Cooley bill that there shall be an entirely separate officer, quite independent of the state superintendent.

The differences in the bills are doubtless familiar to most readers who will see this note. Indeed, it is the purpose of this note to comment not so much on the bills themselves as on the character of the hearings.

At the hearing of the Senate committee it was very interesting to listen to the contentions of one of the speakers who was brought by the Commercial Club interests to represent the bill. He was a lawyer, evidently unacquainted with the details of the Wisconsin plan and, furthermore, evidently quite unable to judge of the value of the measure to the community at large. He could hardly have had any personal interest in the passage of the bill and did not seem in any sense of the word qualified to inform the committee on the real merits of the case. It is interesting to ask the question why such a man should appear in defense of an educational bill. Teachers have from time to time been criticized for going into politics. They have sometimes been criticized for organizing committees on legislation. The hearing before the Senate committee is a perfectly clear demonstration of the desirability of organization on the part of teachers in order to insure satisfactory educational legislation. If hearings are to be attended by people who are evidently there to advocate cases without any special reference to the interests of the state at large, it evidently becomes the duty of the teachers of the state to come to the hearing with the facts on which intelligent discussions must be based.

EDUCATIONAL WRITINGS

The appearance of another book[1] on school discipline as a school problem shows a general movement on the part of students of education and practical school officers to give this important problem its due consideration. The *Journal* commented a few months ago on two other books[2] on this same subject. The present volume is by a district superintendent in New York City. It is interesting to note that he agrees entirely with the other authors that there should be a frank recognition on the part of school officers of the importance of discipline as a problem apart from instruction. He says, as did the other authors, that the young teacher must learn devices for keeping order in the room. Here, as in the other books, attention is called to the fact that a well-conducted recitation and a well-modulated voice are among the devices that can be employed incidentally in keeping proper order in the room. But it is also made clear that the problem is one which extends beyond the mere methods of instruction, and special attention is necessary to this problem if the work of the school is to go on without interruption.

Superintendent Perry's book is to be contrasted with the other books as very general and descriptive in its account of the problems. There is a chapter on the "Psychology of Conduct," one on "Intellect," one on "Feeling," and one on "Will." There is a chapter on "Heredity." There is a chapter on "Nature and Nurture," one on "Stages of Development in the Individual," and so on. In short, nearly half of the book is given over to general discussions which are collateral to the main problem of administering the school.

These general discussions are not very helpful to the student of this special problem because they seem very abstract in the presence of the urgent demand for a definite statement of what one should do in order to keep the school in order. An author can

[1] *Discipline as a School Problem.* By Arthur C. Perry, Jr. Boston: Houghton Mifflin Co., 1915. Pp. 273.

[2] *School Discipline.* By William Chandler Bagley. *The Discipline of the School.* By Frances M. Morehouse.

hardly write with technical accuracy on such a matter as heredity in the compass of the few pages that are devoted to the problem in this book. The same abstractness appears in the paragraphs in which Mr. Perry discusses some of the special problems of discipline. For example, one feels that there is nothing very final about such a discussion as the following.

> Rewards and punishments. All that has just been said applies alike to rewards and to punishments, so that the teacher has frequently to choose between the two as a means of discipline. In general, we may say that it is better to appeal to the pupil by way of reward than by way of punishment. The spirit of the pupil is better sustained by a minimum of punishment. Nevertheless, no pupil should be exempt from the operation of punishment, for punishment is an important and unavoidable fact in life. No pupil should be sent from the school into the business and social world with the idea that he is to be rewarded at every turn when he conducts himself properly or that there are no punishments meted out to offenders (p. 192).

Again, the following quotation is typical:

> Parents' associations. Parents' associations have their place in the scheme of co-operation. These are, of course, more effective if they develop on the initiative of the parents. If they do not evolve thus spontaneously, the principal may skilfully bring about their organization. He should be careful, however, not to take too active and prominent a part in their proceedings. In some schools associations comprising both the parents and the teachers are found effective.
>
> Even with a flourishing parents' organization, there will be many parents who are not brought into touch with the school. The only way in which they can be reached is through visitation either by the regular teacher or by a specially appointed visiting teacher (p. 226).

Such summary treatments of the problem of school discipline ought to be relieved by more careful studies of the different types of children and the different devices which can be employed in keeping them in order.

Superintendent Alderman has for some time been an enthusiast in favor of the movement which gives school credit for various forms of children's activity at home and during their leisure hours. In this book[1] he presents a very full statement of the different plans which are in operation throughout the states of Washington and

[1] *School Credit for Home Work.* By L. R. Alderman. Boston: Houghton Mifflin Co., 1915. Pp. 181.

Oregon for the giving of such credit. Sometimes the plan takes the form of a competitive exercise and the reward offered to the child under the supervision of the school is some kind of a prize. In many cases the reward offered is exemption from some kind of school work. For example, in one of the plans a student who does many of the things that are credited by the school is allowed to answer fewer questions in the examination than the child who does not carry on these outside activities.

What one misses in Superintendent Alderman's book is a clear statement of the effect of all of this on school work. To be sure, there is repeated assertion that in individual cases the work of the school, which up to the beginning of the outside credit was neglected, improved steadily under the stimulus of regular habits and better forms of thought about labor. There is much argument which goes to show that the work which the children undertake is very much benefited by the supervision of the school and the credit which is given by the school, but the essential matter, which is the infringement upon school time, needs to be very carefully studied. In one chapter, for example, in which Superintendent Alderman asks what is to become of algebra, he makes many assertions to the effect that algebra is distinctly improved by the outside credit. That is the result which would interest school people in general, but it seems obvious to many of us that if the school day is not increased at all in length and the requirements for graduation are absolved by giving credit for outside activities, these outside activities will reduce somewhat the amount of school work which will actually be regarded as essential by the school authorities for graduation. Children have always done a good deal of work outside of the school and there cannot be the slightest question that it is desirable to systematize and supervise this outside work. It would seem reasonable to suggest that if the school extends its activities so as to include for the advantage of the outside work these activities that formerly were not on the school program, the school should have some recognition for the extension of its work by being allowed to require more for graduation.

In short, if outside work could be interpreted as a device for extending the influence and scope of the school, there are many who

would be in favor of it. If the supervision of the outside work is to distract the school from its primary function of giving instruction in certain lines that society has long regarded as valuable, then there is a genuine danger which must be safeguarded. On this point Superintendent Alderman's book does not seem to be at all conclusive.

One of the investigations which has of recent years been very productive in an experimental way is the investigation of children's habits of observation. The methods which have been employed are those which originated in Germany with the tests requiring children to describe the details of a picture which is exhibited to them. The selection which the children make of the objects in the pictures and the changes which are exhibited during the various periods of intellectual development can then be recorded in a form that is exact and illuminative. Mr. Winch,[1] who has made extensive studies in the English schools of the various characteristics of children's mental processes, has brought together in a monograph a series of experiments on children's observations of the picture which was used for many of the German tests. The picture itself is reproduced in the book, and the author thus opens a way for similar tests in schools in this country.

Without attempting to go into the details of the results, it may be pointed out that a rapid development is shown in the powers of observation in children up to the age of six or seven. At this point there seems to be a check in the development of perceptual processes. This check is undoubtedly related to the fact that the school training which begins at this point turns the attention of children away from their immediate observation of natural objects to the use of books and reading-matter.

The monograph will be found very suggestive to teachers who are interested in developing the perfectly natural tendency which children bring to the school of making observations, but who find that the ordinary school routine is likely to interfere with this natural tendency rather than cultivate it.

[1] *Children's Perceptions.* "Educational Psychology Monographs," No. 12. By W. H. Winch. Baltimore: Warwick & York, 1914. Pp. 245.

There is at the present time a large body of literature on religious education which is characterized by the desire on the part of religious educators to bring their special field into the closest possible relation to the general work of the school. These writers are prepared to give up many of the special types of instruction which were characteristic in earlier days of religious training. They are anxious to follow the best examples of the present-day public schools. A book[1] prepared by the secretary of the Religious Education Association can be described as typical of the whole series of such writings. Mr. Cope comments on practices of earlier days and practices which he wishes to recommend in a fashion which shows a disposition to be very liberal and yet at the same time a desire to perpetuate some of the older forms of instruction. Take, for example, the chapter on Sunday in the home. Sunday is to be made a day of enjoyment. In order to do this the modern attitude toward play is distinctly to be recognized. The children ought to play, but they ought to have a selected set of games differing from the games which they play on other days of the week. These Sunday games are to be characterized by religious content or by their deference to the needs of other people. The type of enjoyment which they give should be of a somewhat more elevated sort than that which attaches to the games during the rest of the week. The associations with parents ought to be somewhat more intimate than usual.

Take another example. The author wishes to advocate family worship. He says, "It is true that, in many homes, under modern conditions of business, it is almost impossible for the family to be united at the hour when worship used to be customary, following breakfast." Other devices, however, and other times can be adopted, and the chapter is full of suggestions as to the ways in which substitutes can be provided for this earlier family custom.

The book will be found full of suggestions of this type. Indeed, as a book of methods of meeting the exigencies of modern decline of family life, the book may be described as a textbook on the family organization rather than a textbook on religious education. There

[1] *Religious Education in the Family.* By Henry F. Cope. Chicago: The University of Chicago Press, 1915. Pp. 298.

are some chapters which give a general account of the sociological conditions which have arisen in the modern home. The book will be of interest to teachers who are constantly called upon to decide the questions of moral education in the school and in the family. These questions are so intimately related to the division of functions between the school and other agencies that it is frequently the duty of the teacher not only to settle questions of the division of labor here involved, but also to make suggestions to those who are at work on aspects of the problem which are outside of the school.

The effort to make Froebel appear to be an empirical psychologist of the modern type taxes the ingenuity of even an enthusiast for Froebel's system. A new book[1] on Froebel undertakes to prove that he is such a psychologist and at the same time to show that Froebel's system is not only useful in organizing primary and kindergarten work but also helpful to the teacher who is dealing with older children. We are reminded that the school at Keilhau was a school extending far beyond the kindergarten and that the influence of this school has been very great in liberalizing the course of study and the policy of discipline of all subsequent schools. The reader of the history of education would undoubtedly be willing to admit this contention, but to pass from that contention to the contention that it is the psychological foundation for the Froebelian system which explains the success of the school seems a long step which the book itself hardly justifies. In fact, after reading over laboriously some of the passages in which the author attempts to show by comparative quotations and brief explanatory discussions that Froebel is a modern psychologist, one comes more than ever to the conclusion that Froebel is capable of almost any interpretation which his reader wishes to put on him, especially in some of the vague general passages which are quoted in this book.

Modern empirical psychology has gone so far in developing a technique and body of results that it seems altogether unwise to try to prove the utterly unprovable thesis that men of three-quarters of a century ago knew what modern psychology has

[1] *Froebel as a Pioneer in Modern Psychology.* By E. R. Murray. Baltimore: Warwick & York, 1914. Pp. 230.

brought to light in regard to the functions and forms of mental life. It is not likely that even the kindergarten will benefit by any effort to revive and maintain the Froebel cult. The kindergarten ought to be free from any of the traditions that attach to the vague and metaphysical doctrines out of which it originally grew. What is needed today is a vigorous study of real children, not platitudinous statements or efforts to extract from psychologies of a bygone day some remote resemblances to modern statements. Every kindergarten teacher and every other student of Froebel ought to realize that Froebel would undoubtedly have encouraged all of his followers to progress as the school has progressed since his day. It will be very much better for teachers to spend their time reading William James or some good modern psychologist than to go back to this rehearsal of Froebel's doctrines.

The child-study movement in this country has been absorbed in the other forms of scientific study to such an extent that it is difficult to determine in advance just what an author means by the title "Child Study." The book[2] before us has used the title in a fashion which is hardly in keeping with the traditions of the name. The topics which are covered might very much better be indicated by some such phrase as "A Study of the Child's Home Relations." The book is intended to give suggestions to parents' associations and other organizations of this type which wish to make a study of the literature dealing with the child in his relation to the church, the members of the family, the playground, and other organizations and agencies which lie very largely outside of the school itself. There are outlines or studies on the father as the guardian of the home, the father and the alcohol problem, and the father as a handy man. There are outlines on the political status of motherhood, the pension system and motherhood, and so on. These topics, selected at random, indicate that the scope of this study is not that which would ordinarily be indicated by the title "Child Study."

The author is very enthusiastic about the organization of groups of parents who are to carry on these studies, and the book is intended

[1] *Outlines of Child Study*. By William A. McKeever. New York: Macmillan, 1915. Pp. 181.

as a handbook for leaders of organizations of this type. The selection of the references which are used for this purpose is, of course, a matter of a great deal of concern to the schools which will be influenced indirectly by the studies of such organizations. The criticism which suggests itself to the reader of the bibliography is that the material has not been very carefully selected. There are a number of excellent references in the list, but there are also a number of articles that are of very mediocre value. Furthermore, the list does not seem to have been selected with any special reference to the probability of the presence of most of the material in public libraries from which it will have to be drawn if it is used by such associations.

Professor Bagley is editing a series of books entitled "The Modern Teacher's Series." The first volume[1] of this series is entitled *The Lesson in Appreciation* and is from the pen of an English writer. In the course of this book the author makes numerous comments on the availability of music and painting as instruments of general education. He attempts to defend the thesis that these subjects should be introduced into the school with a view to cultivating the aesthetic appreciation of students. We are called upon to recognize the importance of this side of the child's nature and are urged to go about its cultivation with a great deal of directness. The book also purports to give us an account of the psychological character of this aesthetic appreciation. Some theory is distributed through the pages of the book. There are many references to the material which is available for instruction.

The book makes the impression on a reader who is not altogether sympathetic with its thesis that such books commonly do. There is an offhand reference to works of art that will be baffling to the person who does not immediately have access to all of these higher forms of culture. He will not know where to find them and he will not know what to do with them when he gets them. There is a certain vagueness in the definition of what is meant by appreciation and in the psychology of the processes themselves. There

[1] *The Lesson in Appreciation.* By Frank Herbert Hayward. New York: Macmillan, 1915. Pp. 234.

is no definite effort to tell just when these various items of experience should be introduced into the school course. In short, one is disposed to make a comment which has frequently been made with regard to art instruction in the school, that if it really is going to be successful it will have to be defined with somewhat greater precision than commonly appears in the writings of those who are most enthusiastic about its introduction.

Two English books which have just appeared would seem to indicate that the child-study movement is being emphasized in England rather more than in America at the present time. The first[1] of these is intended chiefly for Sunday-school teachers. It gives a very interesting summary of the differences between children of the primary years and children of the later years. There is some discussion of the development of infancy. All of the chapters are focused upon the problem of religious instruction.

The other volume[2] by Ellen Adamson is a general study of particular subjects of school instruction. Here one finds chapters on reading, writing, composition, history, etc. The book is a cross between a discussion of methods and a discussion of the results of child-study. Many practical suggestions are given in its pages. The impression one gets after reading the American literature on similar subjects is that the book is written on the basis of a large practical experience and a slight study of scientific work rather than the reverse. The practical suggestions are many of them very useful, but the general drift of the whole discussion is lost in the details which the author writes out of her practical experience.

[1] *Child Study with Special Application to the Teaching of Religion.* By Rev. G. H. Dix. New York: Longmans, Green & Co., 1915. Pp. 134.

[2] *The School, the Child and the Teacher.* By Ellen Winifred Adamson. New York: Longmans, Green & Co., 1915. Pp. 394.

CLASSROOM METHODS AND DEVICES

Problems in Geography—A Continent

In the March number of the *Journal* a number of problems based on the scale, direction, and legend of a map were suggested. The aim of the paper was twofold: to test the knowledge of the subject by the ability to make use of the knowledge and to show that it is possible to devise questions which will show processes of thinking rather than of memory. The present paper enlarges the scope of the former one and blazes a way for problems and test questions in the study of a continent—in this case, South America. Only such of the subject-matter is admitted here as will furnish an outline, and it is to be understood that where there appear to be flagrant omissions the material was not relevant to the problems undertaken, although it may be vastly important from another standpoint. There is good training in making generalizations from the outline and topography maps of South America in order to gain a good conception of the value of these controls, and from them some simple problems may be formulated, but for the purposes of this paper these maps together with the wind maps for July and January with isotherms inserted will be taken as the background of the first series of problems.

1. *Rainfall.*—The study of North America and of the wind belts in preparation for South America yields the following summary:

Rain is the resultant of an ascending current of air containing moisture—the mass of ascending air expands and cools mechanically, the moisture condenses and falls. Ascending currents are caused by:

A. Heated air, which, becoming lighter than the surrounding air, is pushed up, as in: (1) doldrum belt; (2) lows of prevailing westerlies.

B. A slope intercepting the winds, as on: (3) windward slopes.

Dryness, conversely, is the resultant of a lack of ascending currents and may occur under descending currents or surface winds.

A. Descending currents are caused by gravity: (1) doldrum belt; (2) highs of westerlies; (3) leeward slopes; (4) polar highs.

B. Surface winds are drying and cause dryness when they blow persistently over the land: (5) trade winds over land.

With a proper preparation, questions or tasks are possible which call for no great ability, but which demand thorough knowledge.

Locate a region of heavy rain; a region of light rain. What is the rainfall of southern Chile and why? On an outline map, make a rainfall map of South America—using solid blue for areas of heavy rainfall and leaving the regions of light rainfall uncolored. Areas not falling into the two classes may be considered as having a moderate rainfall and may be colored a light shade of blue.

The comparisons of the pupils' maps with an accurate rainfall map will show how far the reasoning process has been followed, and the errors in the maps will expose the weak points in the teacher's presentation or the pupil's comprehension.

2. *Temperature.*—The climatic controls are latitude, altitude, proximity to the sea, winds—especially direction, and whether or not they blow from land or water—and rainfall. In discussing the temperatures, there has been too much generalization; teachers have been satisfied with "hot," "cold," or "temperate" for answers. The word "temperate" has no virtue except to cover a vast amount of ignorance, and little knowledge of middle-belt climates can be gained unless the *ranges* of temperature between extreme seasons are considered.

Discuss the climate of Para from the standpoint of the five climatic controls. Compare the effect of each control on Para and the pupil's home town and establish the causes of the difference. Compare the temperatures of Para and Quito; of Para and Valparaiso. From the isotherms, state the annual range of temperature at Para and Rio de Janeiro. Account for the differences.

3. *Vegetation.*—As climate is the greatest factor in determining the distribution of plants and density of vegetation, the conditions affecting density and kinds furnish a preparation for another problem. Very roughly, regions of heavy rainfall yield forests;

regions of light rainfall or having periods of drought are treeless, but grasses thrive; regions of moderate but well-distributed rains are generally wooded (open forests) in their natural state, but offer excellent areas for agriculture; regions of little rain have desert plants.

What will be the vegetation at Para? at Iquique? at Quito? Locate grass areas in South America. What are the llanos? the pampas? the campos? Where will trees probably be found on this continent? Construct a map showing density of vegetation.

The emphasis in vegetation is less upon density than upon products of commercial value. Problems under this heading may be approached in two ways: first, given the conditions under which the staple products will grow, find the localities suitable for these in the country, or, secondly, knowing the conditions and locations, determine whether the conditions agree with the statements already made concerning the temperature, rainfall, altitude, and latitude of the areas.

Rice requires 60–80 degrees for ripening, an abundance of moisture, and is generally grown on low, alluvial lands in the tropics.

Sugar cane requires rich, moist soil; must be practically free from frost, even in winter; and thrives best in low places in the vicinity of the sea.

Coffee grows in well-watered mountainous regions, 1,000 to 4,000 feet high, in the tropics.

Wheat requires a mean summer temperature of 57 degrees and plenty of sunlight.

Which of these (and other) products will grow about Para? Rio de Janeiro? Quito? Buenos Aires? From a study of the maps already presented locate on an outline map the parts of South America which fulfil the requirements for rice. Find a rice map of the continent and note where rice is cultivated. Why are not all the areas capable of yielding rice used for rice culture? Do the same thing for the other products of South America.

Accurate vegetation maps showing density of vegetation cover and the distribution of important products should be presented. It is, of course, recognized that maps showing distribution of any staple of commerce are not in themselves sufficient and they should

be supplemented by a graph or statement which shows the amounts of yield in the various localities.

4. *Animals.*—If the semi-arid localities, inasmuch as they are covered with sparse grasses, offer food for cattle, it will be possible to discuss the cattle industry of South America from the standpoint of the controls. Plot upon an outline map the areas which, because of a short seasonal or a slight yearly rainfall, are covered with grass and are thus suitable for grazing. Compare this with an animal map and account for the divergences.

Among the controls which should be presented before proceeding far in the study is the soil map, and this can be interpreted to mean not so much the character of the soil as the special soil products. In general terms, rainfall and topography furnish good criteria for the soil condition, but the distribution of important minerals in South America—the gold, silver, and sodium nitrate especially—is a large factor in the distribution of the people.

5. *Commerce and population.*—Areas of largest commerce are found where the staples of trade occur in greatest quantities and they are generally located near a convenient harbor or station; areas of moderate commerce follow the same law somewhat modified; inaccessible areas are undeveloped and barren areas are unproductive. Considering the presentations up to this point, it will be possible for the pupils to prepare a commerce map, showing the areas indicated above. Here, as in other cases when an accurate commercial map is presented, a number of points will probably have to be considered because of the departures of the pupils' maps from the true one. As commerce is to a great extent influenced by the density or sparsity of population, a map showing density of population could be made by the pupils.

6. *Exports and imports.*—The teaching of the exports and imports of a country from a tabulated list is a deadening process and rarely accomplishes anything. It is evident that a country will export products demanded in the world's commerce of which an excess over home needs is produced, and will import the necessities and conveniences of life which the land does not yield. The exceptions to this rule are relatively few, but prominent enough to call forth a special explanation. In South America, a review

of the chief products which the country possesses in quantities ought to make clear what the exports are; for instance, on the vegetation map wheat and grass lands for grazing were indicated for Argentina. There was a distinct absence of important products such as the United States finds of value, notably coal and iron, by which manufacturing is carried on. If this is true, then it must be evident that manufactured goods will be a need of Argentina; foremost among these are textiles, cotton and woolen cloths, and then come tools, implements, and manufactured foods. Argentina engaging largely in agriculture will undoubtedly need agricultural implements. What does Rio de Janeiro need? What are the exports and imports of Para? Iquique?

A general treatment of South America is frequently followed by a special treatment of specific important areas. On this continent this would include Rio de Janeiro and coffee, Buenos Aires and wheat and cattle, Iquique and sodium nitrate, and Para and rubber; or, as is at times the custom, the leading states, Brazil, Argentina, and Chile, are studied in more detail. In any case, the work is a review of generalizations, together with a few points of more definite knowledge. In the case of Chile the maps of position, topography, winds, rain, soil, commerce, and population of the continent tell the story and little more is needed except now and then a clearer picture of a few regions, which may fall into the category of type-studies. It is difficult at first for pupils to appreciate that the needs of the home locality are not the needs of all peoples under diverse conditions of life; that meat, an essential part of diet in parts of the United States, has no great place in the life of the people of Para, but considerable training should be given along this line. Questions and problems on the work may be from actual cases or may be hypothetical.

Draw the following areas: a map of a locality, 300 miles from coast to mountains, in the trade winds, which will be a desert; a map of a region with uniform temperature, indicating its climatic and topographic conditions and enough data to explain the climate; a map of a locality producing rice, wheat, and cattle, and possessing a harbor which has to be protected by artificial means from the winds; an area having a gold-export trade, but importing

foods, textiles, and implements; a sketch map of Peru (exporting metals, sugar, and cotton and importing bread stuffs, hardware, and cotton cloth) showing the basis of her trade; a map showing the reason of the lack of rainfall about Lake Titicaca; a map of Chile which will explain her three types of climates, and at the same time will illustrate the industries of northern, central, and southern Chile.

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PLANS FOR TEACHING A STORY TO SMALL CHILDREN

The place of literature in the elementary school is too well assured to admit of any argumentation; its function is too well established to require explanation. It is a fact, however, that even the most enthusiastic teacher occasionally wonders why she secures responses from so few of her pupils.

Aside from the fact that some children are more motor than others, it is just as true that some are more matured, or are naturally brighter than others, and the teacher in her exercises in story-telling makes her appeal directly to the favored few. The less fortunate children are required to do or say too much for their powers and consequently become hopelessly muddled in thinking and in expression. Should the teacher have a great aim in presenting the story, and then upon each repetition have a subordinate aim, she would be more successful in her results. By this means the children are led to picture the situations vividly, to think the process in orderly fashion, to express it clearly, and to live and love the story because of its being their very own.

The well-known story of "The Three Billy Goats Gruff" by Dasent is taken to illustrate the points made. The lessons do not have to be given upon successive days.

FIRST LESSON

Teacher's aim: So to tell the story that the children's attention will be gripped, their imagination quickened, and interest sustained to the end.

Method: How many of you have ever seen a billy goat? How many of you have one at home? What can yours do? [Free expression.] Do you think he is very bright? I know a story about three Billy Goats, and they were very interesting. Would you like to hear the story? Listen while I tell it. [Teacher tells the story with dramatic effect and without comment.] What do you think of these goats? [Free expression.] See if you can tell the story to your mothers when you go home.

SECOND LESSON

Teacher's aim: To clear up obscure points in the minds of the children and to assist them in getting a more definite idea of the story.

Method: You remember the story we had the other day about the Three Billy Goats. What were these Billy Goats named? Where did they go? Who tried to keep them from going? Some of you have seen billy goats, but some of you have not. I am sorry that I cannot show you a live one. I haven't any, but here are some pictures of billy goats. [Teacher shows several pictures.]

Would you like to hear the story again? I shall tell it if you help me. [Teacher tells, assisted by children; e.g.:]

(*Teacher*) Once upon a time there were—

(*Children*) three Billy Goats, etc.

(*Teacher*) Under the bridge there lived—

(*Children*) a great Troll.

(*Teacher*) What is a bridge? Where is one near here? This is the picture of a bridge—another picture. I am sure you never saw a Troll; they do not live now. We can only think how they looked. This Troll had eyes—

(*Children*) as large as saucers;

(*Teacher*) and a nose—

(*Children*) as long as your arm.

Shut your eyes and think of a Troll that looked like that. Think of him as under the bridge. I am sure we should be afraid to cross that bridge, but these little goats were not afraid. Help me to tell what Little Gruff did; Middle Gruff [etc., until the entire story has been told by teacher and children].

THIRD LESSON

Teacher's aim: To induce the children to think through the story, putting incidents in their chronological order.

Method: We know the story of the Three Billy Goats so well that today we shall try to tell it and not leave out anything. How does the story begin? [Once upon a time there were three Billy Goats.] Where were the Billy Goats? Where did they want to go? What was the trouble they would have in getting there? Which Billy Goat went first? Tell what the Troll said to him, and what he said to the Troll. Tell about the next Billy Goat. What comes next in the story? Tell about it. What are the Billy Goats doing when the story ends?

FOURTH LESSON

Teacher's aim: To lead the children to dramatize the story.

Method: We shall play one of our little stories today. Which one do you want? [This story will be selected at some time. The teacher can afford to let it wait until the children want to play it.] I am sure that we know the story of the Billy Goats Gruff well enough to play it today. What must we have? [Children will probably name the Three Billy Goats and the Troll.] We shall need something else besides animals. [Children will probably mention bridge, hill, and lowland.] Where shall we have the hill? What can we have for the bridge? Where shall be the plain where the Billy Goats were first eating? [Children arrange details. The actors may be selected (*a*) by teacher, (*b*) by a leader, or (*c*) may be volunteers. Several sets of children may play the parts before the period ends.]

Remember where the Goats are at first, where they are to go, and exactly what they are to say. Take places, etc.

FIFTH LESSON

Teacher's aim: To lead the children to tell the story with attention to order of events, in good language, and with vivid interest.

Method: I wonder if we can tell the story of the Billy Goats Gruff today. Tell of the three Goats, what they were doing, and what they thought they would like to do, John.

Tell of the trouble they would have in getting to the mountain and what Little Gruff did, Mary.

Tell what Middle Gruff did, Edward.

Tell what Big Gruff did, and how the story ends, Anna.

Tell the whole story, Edith.

SIXTH LESSON

Teacher's aim: To allow the class to give free expression to the story.

Method: What story do you want today? Shall we tell it or play it? [Volunteers to tell or play. Children arrange all details, etc.]

SUGGESTIONS

1. Tell some stories to the children without expecting any response from them other than the light upon their faces.
2. Often let the children volunteer to tell stories.
3. Often let them select the stories to tell or to be told.
4. Let the story-teller face the audience and try to interest them.
5. The audience should be free to clap or to show approval in any way if the story is pleasing to them.
6. The audience should be encouraged to ask questions at the close of a story.
7. The teacher in her favorable comment may take occasion to call attention to something which she is emphasizing with the class; e.g., "We enjoyed Ben's story. He spoke so clearly."
8. The teacher should draw the class as closely around her as possible.
9. A good story will stand many repetitions.
10. An uninteresting story should not be repeated.
11. Never forget that literature should give joy, joy, joy.

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THE QUALITY OF INSTRUCTION VERSUS THE SUBJECT-MATTER OF INSTRUCTION—*Concluded*

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EDUCATION FOR CONDUCT VERSUS EDUCATION FOR KNOWLEDGE

The existence of this fundamental paradox is to be accounted for, I believe, by the fact that our standards for judging instruction and our ideas of the subject-matter of instruction belong to widely separated epochs in the history of education. The ends of education are now defined in terms of conduct, and good instruction is such as will influence behavior. Hence the insistence upon motivation, appeal to the emotions and to the imagination, large place for thought and judgment, opportunity for initiative and individuality, and emphasis upon doing, as the marks of good instruction. The aims we are endeavoring to achieve through the school thus belong to the twentieth century and are well founded in modern psychology and sociology. Our ideas of the materials of instruction, on the other hand, belong more nearly to the seventeenth century. They belong very largely to the age of "pansophia" or "encyclopedic education." They belong to an age when the question was not What can a man do and how does he behave? but What does he know? They belong to the age which gave rise to such adages as "Knowledge is power."

Educationally, most school men are much like the Indians, who in large numbers at different times in the early history of our country confessed the Christian faith and thereafter called themselves Christians, but who went on about as before, robbing, devastating, and reeking vengeance on their enemies. So with most school men, we confess to believe that the chief purpose of education is to influence conduct, but we go on making our courses of study encyclopedic in scope, insisting that our textbooks be encyclopedic in character, and measuring the results of our work in terms of knowledge. Acting on our twentieth-century belief in

the aims of education, we condemn our schools and criticize our teachers, because instruction is poor. Acting on our seventeenth-century ideas of subject-matter, we set teachers the task of handling materials which by reason of their character and organization inevitably lead to poor instruction, when this is judged in terms of education for conduct.

IMPROVING THE QUALITY OF INSTRUCTION: GENERAL SUGGESTIONS

Until this basic paradox between the purposes that we are seeking to achieve and the subject-matter which we are using to attain our ends is removed, instruction will continue to be adjudged poor in quality.

A system of administration which permits of large freedom among teachers, better supervision, and better-prepared teachers, will help to improve classroom teaching, but even more important are:

First, there is need of bidding farewell, now and forever, to the encyclopedic conception of education and to the idea that there is a fixed and specific body of information, other than a command of the rudiments of the three R's, which everyone must possess to be intelligent. Intelligence implies knowledge, but no given body of knowledge. Aside from the technique involved in gaining the ability to read, write, and cipher, the elementary school should not give place to mere information or to materials which appeal merely to the intellect. Only such other materials should find place in the elementary course of study as, in addition to appealing to the intellect, will excite the imagination, grip the heart, and influence the taste, the aspirations, and the actions of children in ways socially acceptable. In a word, we should cease teaching knowledge for the sake of knowledge, and use knowledge merely as one of the means of influencing conduct.

Second, the subject-matter taught not only should fulfil the above requirements, but should be such in character and in organization as will permit of a ready application of modern principles and methods of instruction. We should do for the course of study of the ordinary school what the writers of our best textbooks on the principles and methods of instruction have done for particular les-

sons, or what the teachers of our best practice schools have done for given series of lessons, or are attempting to do for the curriculum as a whole. That is, we should select and organize the materials of instruction in view of the requirements of good teaching. This implies, of course, that the determining factors in the selection of subject-matter are the ends to be achieved and that what we teach is subordinated to these ends. Concretely, we should stop teaching United States history as history and select from the entire field and use only those portions which fit in with our purposes as defined in terms of conduct. In this way and in this way only will habits, ideals, and modes of behavior become the actual goal of our endeavors.

Third, there is need of getting away from the idea that anything has really been accomplished when changes are made in the course of study only. Too often such changes are acclaimed as educational achievements, when, as a matter of fact, no corresponding changes have been made in the subject-matter furnished the teachers, and in consequence classroom work goes on about as before. How often has this been the case, when such topics have been added to the curriculum as local history, local industries, local government, biographies of great men, stories of inventions, lessons in morals, and the like. Experience should long since have shown us that the chief way to influence the work of the schools is through the subject-matter taught. No change in the course of study is complete and effective, in the ordinary system of schools, until teachers are provided either in reference books or in textbooks with appropriate materials and these in such form and so organized that the principles and methods of good teaching can be easily applied in their presentation. Until such materials are supplied the work of the school will remain relatively unchanged and instruction will continue to be poor.

Fourth, there is need of superintendents, supervisors, and principals seeing that much of their work at the present time is without results, because they are working at their problems from the wrong side. There is little to be gained by talking to teachers, as is so often done, about how they ought to teach and about the characteristics of good instruction, when the very subject-matter which

the teachers are called upon to present keeps them from doing what they are asked to do. Let superintendents, supervisors, and principals come to see that the most important part of their work is to provide teachers with materials of the right kind and these properly organized, and the questions of methods of teaching and of the characteristics of good instruction will largely take care of themselves, or at all events what they have to say about these things, when once appropriate materials are supplied, will yield results.

Fifth, there is need of a better appreciation on the part of all of the importance of the right kind of subject-matter. To determine the aims and purposes of education and to establish the principles and methods of instruction is only half of our problem. The other half, and, from the point of view of achieving the ends desired, quite as important as the first half, is the working-out of appropriate materials of instruction and putting these in such form that they are readily accessible both to pupil and to teacher. Persons especially fitted for this work should be given opportunity in the public school and especially in higher institutions interested in public education to work out and to organize such materials. The preparation of materials to be used in the classroom has been left, up to the present time, very largely to interested individuals. The preparation of such materials is vastly too important to be left to private enterprise and to chance, and should long since have been made an integral part of public education.

IMPROVING THE QUALITY OF INSTRUCTION: SPECIFIC SUGGESTIONS

To be more specific, if the quality of instruction in the ordinary school is to be improved, there is need of a better working appreciation of what is concrete to the child and of a better appreciation of the significance of the concrete in teaching. For instruction that is thought-provoking and inspiring and that fosters vigorous mental action must be concrete or at least deep-rooted in the concrete.

The concrete versus the abstract.—There is an inclination to think that subject-matter dealing with particular situations, objects, processes, actions, and persons is concrete; whereas the abstract is the principle, the rule, or the definition. Yet descriptions and

narratives, though they deal with given situations, objects, and processes, may for particular children be abstract—abstract in the sense that they call to mind no vivid images nor carry for the child any meaning. Indeed, in this sense, the most specific statement of fact may be an abstraction. For example, the inventor of the telephone used the phonautograph and the manometric capsule. Unless one happens to be familiar with the phonautograph and the manometric capsule, this sentence is about as meaningless as the third law of motion would be to a first-grader. To be sure, only those materials are concrete which have to do with specific situations, objects, and processes, but materials of instruction, no matter how simple and vivid the treatment, are concrete to children, only when the children have, or can readily acquire, an abundance of experience in the light of which they can give meaning to the subject-matter in question.

To a boy in central Illinois who has plowed the land, prepared the soil, planted, cultivated, and harvested corn, geographical materials on "How Corn Is Raised" are concrete, but to the boy in the heart of New York City, who may never have had so much as a good-sized clod in his hand, who has never seen a cornfield, and who never in all his life cared for any kind of a plant, to such a boy, the very same materials are abstract. He may memorize what the teacher tells him or what the textbook says about "How Corn Is Raised," and he may talk parrot-like about corn-raising, but in reality the process means little or nothing to him, and the mastery of such materials has little if any educational significance. Similarly, to the girl who has planted, tended, picked, put up, and sold an acre of tomatoes, to such a girl, problems in arithmetic having to do with tomato-raising are concrete, but to the girl who has never had anything to do with raising and marketing garden products, these same problems are abstract. The attaching of names to numbers does not make problems concrete. For whether or not a given body of subject-matter is concrete or abstract depends entirely upon the experiences of the particular group of children to whom it is presented.

From this point of view, a considerable part of the contents of our textbooks for the primary grades, to say nothing of the contents

of those for the upper grades, cannot be other than abstract to at least a part of the children to whom such subject-matter is taught. The following paragraph is from a chapter in a home geography, on "What the Cow Furnishes Us":

> Do you know how cheese is made? The milk is first curdled by putting into it some liquid rennet. Rennet is the name given to a preparation made from the inner coating of the calf's stomach. The curd is separated from the watery part of the milk, which is called whey, and then pressed into solid cakes. The curd is then called cheese.

To the few children who have seen cheese made in this way or who have actually made it in this way, the foregoing paragraph is concrete, but to those who have not had this experience and to whom this experience is not supplied this paragraph is about as meaningful as the rule for extracting cube root found in our older arithmetics. To take children under these conditions over page after page of such materials is a waste of good time and a travesty on education which is expected to educate.

If, then, instruction is to be more than memory work and drill, it is incumbent on us to make sure that our materials of instruction are really concrete, and concrete to the particular group of children to whom they are presented.

Concreteness, a factor in the selection of topics.—How can much of the material which we are expected to present ever be made concrete to children? asks the teacher. It should be confessed that as long as we hold to an encyclopedic conception of education, a large part of what we teach the children can never be made real to them. If, however, we take the position that, apart from the mastery of the basic elements of the three R's, there is no other knowledge which all children must of necessity have to be intelligent, to be good citizens, and to be started on a self-supporting career, then the problem is not so difficult. We can make concreteness, or the possibility of making given materials of instruction real to particular groups of children, an important factor in the selection of the topics of instruction, and that is what we should do, in so far as we can.

It is almost a hopeless task for a teacher in New York City to attempt to make real to her children copper-mining, but how different in Butte, Montana, where copper-mining is the very life of the

city, indeed, the very life of the children themselves. Copper-mining might well be ignored in New York City, whereas in Butte it should be given special attention. There is little opportunity in Fall River, Massachusetts, to make real to children iron- and steel-making, but Fall River offers a splendid opportunity for teaching spinning and weaving. Irrigation can be made concrete to children in Colorado; wheat-growing to children in North Dakota; lumbering to children in northern Minnesota; cotton-growing to children in Alabama; corn-growing to children in central Illinois, and so on, but there is little hope that instruction in these topics will ever be other than on the lower plane so long as we require teachers to present such topics where it is impossible to make them concrete.

There is large opportunity in all the important common-school branches to select subject-matter in view of making it real to particular groups of children. To be sure, the fundamentals of arithmetic are the same for all, but when we come to socialize arithmetic, to give to children worth-while problems, to make arithmetic a means of acquiring knowledge of social and industrial life, the field of application must be concrete to the children in question. Fall River, Massachusetts, might well teach the arithmetic of spinning and weaving, but such arithmetic would be an empty and formal exercise to the children of Whitehall, Montana. At Whitehall, the arithmetic of irrigation could be made real, but to teach the arithmetic of irrigation at Fall River would be worse than useless. Reading likewise affords abundant opportunity for such selection of materials. What better materials in reading could be presented to children who are familiar with ships and whose fathers and brothers work on ships or are engaged in ship-building than materials such as are suggested on "Ships and Ship-building" by Edith P. Parker in the October number (1914) of the *Elementary School Journal*. Similar groupings of materials can be made for children who live on the prairies, in the heart of a mountain region, by the great lakes, or on the banks of a river, or for children whose fathers and brothers are farmers, or miners, or mill-workers, or common laborers. Indeed, it is possible to select materials for reading which can be made real to children of every type and kind.

To select materials of instruction in view of the possibility of making them concrete to particular groups of children is therefore within limits altogether possible, and just to the extent that this is done have we reason to hope for better teaching in the ordinary school.

Richness of details versus meagerness of details.—By reason of the encyclopedic character of our textbooks, it would be possible to select from them a series of topics which could be made real to a particular group of children. But if a superintendent or principal or teacher made such a selection, it would be found that at least in certain subjects, such as arithmetic, physiology, geography, and history, the topics selected would be treated in barest outline. Relatively, a very few problems are given in our arithmetics under the arithmetic of the farm. A few paragraphs or possibly a few pages are devoted in our geographies to lumbering, or to mining, or to any one of the other of our basic industries, and in our histories a treatment equally short seemingly is regarded as adequate to tell the life-story of one of our national characters or to give the historical background of any one of our present-day social or industrial problems. Indeed, one is scarcely aware of the meagerness of the details in our standard textbooks, unless the question has been given special attention.

This meagerness of details is brought clearly to view if the materials on cotton-raising in our best geographies are contrasted with the materials contained in *Cotton-raising* by Bronson, or if the details in our geographies on lumbering are compared with the details on this subject in *The Blazed Trail*, by Stewart Edward White, or if the barren outline of the life of one of our great men, for example, Cyrus Hall McCormick, as sketched in our primary histories, is placed alongside the rich and suggestive treatment of McCormick's life by Herbert N. Casson. Equally striking is the contrast between the dry-as-dust outline statements about the closing scenes of the Civil War, found in our advanced histories, and the heart-gripping descriptions of the same events in the first chapters of *The Leopard's Spots* by Thomas Dixon.

These outlines with their meagerness of details may have answered when the ideal in education was to impart knowledge and

a little of it about many things. But in an age when knowledge is looked upon as a tool and to be acquired in most part when there is special interest or when needed for practical reasons, and in an age when the purposes of education are to develop in children the ability to collect and organize materials and to think rightly, to fix habits of action, attitudes of mind, and ideals of conduct, in such an age these outlines by no means meet the requirements of the school.

If the teacher is to make real and significant topics of instruction to particular groups of children, there must be at hand, it will be admitted by all, an abundance of well-selected details. For only as children are led to acquire of themselves or there is presented to them upon the topic in hand materials rich in detail do they become really interested, do they have opportunity to weigh the value of materials, do they find of themselves problems and work out their solutions, are their imaginations fired, their emotions aroused, and their ideals of conduct influenced. Children may, to be sure, be swamped by too many details, however well selected these may be. This, however, seldom occurs. The materials presented, if instruction is to be of good quality, should at least be sufficiently rich in details to enable the children to form vivid mental pictures, mental pictures as real and vivid as the different scenes of a moving-picture and at least adequate to enable them to do real thought-work.

Before any great improvement in classroom work can reasonably be expected, teachers will need to be supplied with an abundance of materials rich in details and these materials in such form that they can be readily used. To provide such materials is a difficult task and at best it will be a slow process. In the meantime, teachers should be encouraged to do all they can of themselves, and generosity should be exercised in judging of the quality of instruction.

Fertile topics versus barren topics.—Topics of instruction might be selected which could be made concrete to given groups of children and an abundance of well-selected details might be provided, yet the topics chosen might be of such a kind that they lack thought-provoking characteristics, or lack those qualities which appeal to the imagination and stir the emotions, or fail to carry in themselves

lessons which will influence the conduct of children in desired ways. Teachers recognize these differences, for how often the teacher apologizes for a poor lesson on the ground that the particular subject-matter gave no opportunity for good teaching, and all too often the teacher is right.

There is the very widest difference in the teaching possibilities between a series of lessons on cube root and a series of lessons on the arithmetic of the farm. The fourth-grade teacher who is called upon to teach the names of the states, the capital of each, and one other important city may perform this formal task with great skill, but it is almost foreordained that her instruction will be on the lower plane, whereas the instruction of a teacher of very much less native ability may well be of good quality when she is presenting a series of lessons on "How Corn Is Raised." There is only about one thing that even the very best teacher can do who is called upon to teach the skeleton and the bones of the human body, but what magnificent teaching opportunities are afforded in a series of lessons on bacteria. The "Panic of 1837" as a topic in history is barren of thought-provoking situations, of the qualities that appeal to the imagination and that carry vivid life-lessons when compared with a topic such as the "Invention of the Reaper."

So long as we hold that there is a specific body of knowledge apart from the basic elements of the three R's, which all children must have, naturally enough we proceed to impart this information irrespective of the teaching opportunities the particular materials may offer. This, of course, makes the giving of specific information the primary work of the school. By the same token, if our working aim is to develop, in children, methods of work, ability to think rightly, proper attitudes of mind and standards of conduct, then, to be logical, to be consistent, the topics of instruction selected should be such as will contribute to the achievement of these ends.

When one glances over the prescribed topics in the courses of study of even our most progressive cities and when one turns over the pages of the textbooks which are used to carry into effect the requirements of these courses of study, one is struck by the number of topics which are primarily informational and which afford a

minimum of opportunity to do good teaching when this is judged in terms of education for conduct.

The topics which teachers are called upon to teach, if the aim of the modern school is to be realized, should be rich in the opportunity they afford children to exercise initiative and individuality, rich in opportunity to try out different methods of work, rich in thought-provoking situations, rich in those qualities that fire the imagination, and rich in vivid life-lessons. In a word, topics of instruction should be selected, not so much from the point of view of information, as from the point of view of the teaching possibilities they afford.

Few topics versus many topics.—If there is any one mark particularly distinctive of our courses of study in the elementary school, it is the number of the prescribed topics of instruction. Not infrequently these prescribed topics follow closely the chapter headings of the adopted textbooks and it is not uncommon for teachers in attempting to carry out the prescriptions of the curriculum to follow their textbooks almost chapter by chapter and paragraph by paragraph. The number of topics covered in our standard textbooks is therefore at least suggestive of the number of topics actually taught. A popular home geography covers, for example, forty-eight different subjects, giving an average of five pages including illustrations to each theme. A popular primary history, in a little less than four hundred pages, sketches, as we have seen, the life-story of some sixty great Americans. What is true of the multiplicity of topics in the textbooks for the lower grades is even more true of those for the higher grades. It should also be taken into account that these different topics are as a rule treated in quite complete outline, with the result that effort is made to squeeze into a short paragraph the essence of what is presented in more comprehensive works in a chapter of length—in a word, our textbooks, reading excepted, are epitomes.

There can be but one effect, as pointed out above, upon the quality of instruction of this effort to cover in miniature a multiplicity of topics. Under such conditions, there is no time to guide children in collecting or acquiring of themselves an abundance of

rich details about the questions in hand; there is no time to give children an opportunity to organize and weigh the worth of materials; there is no time to permit children to abide with a subject until they are sufficiently familiar with it to discover problems and to work out their solution, or to see the relations of the given subject to other subjects and to understand its significance for individual and social life; there is no time to permit children to become so saturated with a theme that it has its way with their imaginations and emotions; there is no time to permit a subject to carry over and to impress its lessons. With a large number of topics to cover, all of necessity is hurry. Indeed, the work of the schoolroom reminds one of a public reception; the topics of instruction are the honorable persons to be met, and the children are the guests. The children are introduced, as it were, to a great subject, they abide with it from eighty to a hundred minutes and then pass on to a new theme, to forget all too often that they have ever studied the given subject.

Present-day standards of instruction demand a procedure diametrically opposite to this. They demand concentration on a few large topics in order that children may have the time to acquire the needed richness of details, may have opportunity to exercise initiative and individuality, may learn to think rightly with different materials and under different conditions, and may have opportunity to put to use what they have learned and to act upon the impulses that have been aroused.

So long, then, as teachers are required to take children over a multiplicity of topics, so long will instruction appeal to memory and emphasize drill, and only when teachers are permitted to concentrate on a few rich topics can we expect them to do teaching which will meet present-day standards.

Kind of subject-matter and textbooks needed.—We need then, by way of summary, if the quality of instruction is to be improved, to concentrate upon a few fundamental topics, upon topics that are to the human mind what the mountain ranges and great rivers are to a continent; these basic topics should not only be selected in view of the information to be acquired through their mastery, but they should be selected particularly in view of the opportunity they

give children to participate in the right kind of educative activities, hence, in view of the teaching opportunities they afford; these topics should be clothed in a richness of well-selected details; and the particular topics to be taught to a given group of children should be chosen in view of the possibility of making the given topics concrete and real to the children in question.

Our textbooks, with the exceptions of reading, contain, as we have seen, very little of such subject-matter. They have been prepared rather in view of giving something, however little it may be, about every topic that might possibly be taught in any considerable number of places. Their growth has been, on the whole, by mechanical addition, for most new authors have felt constrained, for practical reasons, to include in their books the themes which successful writers have covered in similar books, and few old authors have ever been brave enough to eliminate any considerable number of old topics. Our textbooks are thus dominated by practical rather than educational considerations. They are made to sell and not necessarily to meet real and particular educational needs. Private interest is thus left in a way to dominate an important aspect of public education.

It goes without saying that our textbooks should be prepared solely in view of educational considerations. Even were this done, there might well be certain books, such as readers, arithmetics containing the fundamental operations and the like, and geographies made up largely of maps, which would serve for the country as a whole. There might be other books, such as spellers, physiologies, and histories, that would meet the needs of a considerable number of places. There would, however, remain a considerable part of the subject-matter of instruction for the elementary school which should be prepared in view of the educational requirements of particular groups of children and particular localities. For example, if arithmetic is to afford to children opportunity to pursue right methods of work and to do genuine thinking, if arithmetic is to be made a "content" as well as a "tool" subject, and thus become a medium of giving children valuable insights into industrial processes and business operations, we should have arithmetic in the form of booklets which treat separately the arithmetic of each of our basic

industries and the particular commercial transactions arising therefrom. If geography is to be a worth-while subject, we need, in addition to good atlases, a goodly number of special geographies, the geography of irrigation, of cotton-growing, of corn-raising, of copper-mining, of lumbering, of New Orleans, of New York City, and the like. If history is to carry over its vital lessons, the ordinary outline on McCormick and the reaper is not sufficient for the children of the Middle West or the Northwest, nor will the common treatment of the inventions of Hargreaves, Ackwright, and Crompton answer in New England towns having as their principal industry spinning and weaving. Similarly, the civics applicable to a large city is by no means suited to given small towns or to given rural districts. Likewise, a physiology adapted to teach the requisite lessons on hygiene and sanitation in a dry, cool climate like that of North Dakota will not serve the needs of the school in a wet, hot climate such as is to be found in Florida. Moreover, all of our textbooks should be prepared not so much from the point of view of treating a few great topics in rich detail, as from the point of view of bringing children face to face with vital life-problems and of providing them with the materials which will enable them to think these problems through for themselves.

School men as a whole, it will be granted, are, at the present time, far from accepting the position taken in this paper—that, aside from a mastery of the elements of the three R's, there is no specific body of information which all elementary-school pupils should have to be intelligent, to be good citizens, and to be started on a self-supporting career. Our subject-matter of instruction as embodied in even our very best textbooks is surely far from the kind we are maintaining should be used. Nevertheless, there is a rapidly growing number of school men who believe that the school must follow along the general lines here suggested, if classroom instruction is to contribute its full share toward achieving the purpose of education.

KINDERGARTEN VERSUS NON-KINDERGARTEN CHILDREN WITH RESPECT TO CERTAIN TRAITS OF CHARACTER

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This is a study of 380 grade children, in twelve grades, all of the Edgewood Public School. The method is one of comparison based on teachers' estimates of certain traits of character enumerated in Table I. There is no attempt to take into account native ability.

Conditions for the study are favorable for the following reasons: (1) Edgewood is a residence town having an unusually even class of children—all come from good homes, all have intelligent parents; (2) the kindergarten children are not from more favored homes than the non-kindergarten; (3) the kindergarten has been established for sixteen years; (4) the kindergarten instruction has been good. For seven years it has been directed by the present recently elected assistant supervisor of the Pittsburgh kindergartens.

To save space in the tables and to avoid repetition, K in this paper signifies kindergarten children, NK, non-kindergarten.

In obtaining the materials for the study, a form similar to Table I was given to each teacher. They were asked to write in the first column the names of their pupils and to grade them in each of the seventeen qualities as conscientiously as possible. No teacher knew that the study had anything to do with kindergartens. The forms were collected and afterward the kindergarten children were marked with a star. No prejudice on the part of a teacher with regard to kindergarten could affect the result as they had no idea of the purpose of the classification.

The report from each school was summarized as at the bottom of Table I. Under column 1, self-confidence, the average of the K is P.9; of the NK is 2. The smaller number of course denotes

the higher standing. As only 1, 2, and 3 are used, the decimals are significant. In the last column the summaries of all the qualities are compared. In Table I the NK are surpassed by 0.17 of a point.

Table II tabulates the averages of all the schools after each was footed up as in Table I.

In Table III the differences in favor of either K or NK, as shown in Table II, are placed in columns. The sums of the variations of all the schools are given below each quality, and the difference of these sums is marked K if the difference is in favor of the kindergarten children, and NK if in favor of the non-kindergarten. The amount of variation may not be so significant, but the remarkable uniformity of results in every school could hardly be accidental. Since the sum of the differences is taken, in Table III the larger sum represents the greater degree of difference.

K children show greater self-confidence in every room but two. In moral attitude the NK surpass in seven rooms out of twelve and show a total difference of 0.33. In love of nature K surpass in every school but two. In ability to mix K surpass in every school but one. In friendliness K are ahead. Their advantage in interest is small but the NK are far ahead in attention. The K surpass in ability to think, in originality, in observation, in response to ideas, in response to directions, in cleanliness, in oral expression, and in ability to play. The NK surpass in but four points: namely, moral attitude, attention, manual ability, and orderliness.

The most remarkable differences in favor of K are in ability to mix, in originality, and in response to ideas. The difference is high in favor of K in self-confidence, love of nature, friendliness, observation, oral expression, and in ability to play.

The big advantage shown by these tables in favor of K, and the fact that the advantage is true in nearly all the schools, could hardly occur by chance. If, in a study of 380 children in twelve groups rated by different teachers independently, the results are so emphatically in favor of K, there is no reason to suppose that the same result would not be obtained in any group of children if they were of an even class. Native ability would not affect these tables, as they are based on averages and there is no more reason

TABLE I

GRADES: VERY HIGH, 1; MODERATE, 2; LOW, 3

1. Self-Confidence
2. Moral Attitude
3. Love of Nature
4. Ability to Mix
5. Friendliness
6. Interest
7. Attention
8. Ability to Think
9. Originality
10. Observation
11. Response to Ideas
12. Response to Directions
13. Manual Ability
14. Cleanliness
15. Orderliness
16. Oral Expression
17. Ability to Play

Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
A. B.....	2	2	1	1	1	2	2	2	2	2	2	2	3	3	3	2	1	
B. E.....	1	1	2	2	1	1	1	1	2	1	1	3	2	1	1	2	2	
B. W.....	1	1	1	1	2	2	2	1	1	1	1	2	1	1	3	2	2	
etc.																		
etc.																		
21 K.....	1.9	1.57	1.43	1.71	1.33	2	1.9	2.05	1.95	1.57	1.9	1.57	1.81	1.52	1.95	2.09	1.57	1.75
9 NK.....	2	1.22	1.33	1.55	1.11	1.44	1.33	1.44	2.22	1.77	1.55	1.22	1.77	1.55	1.55	2.11	1.66	1.58

TABLE II

Grade		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Average
I	K	1.75	1.47	1.75	1.66	1.16	1.66	1.78	1.87	2.06	1.75	2.03	1.66	1.69	1.41	1.44	1.66	1.37	1.71
	NK	1.80	1.40	1.80	2.00	1.40	1.40	1.60	1.60	2.20	1.80	2.20	1.40	1.40	1.00	1.00	1.00	1.60	1.56
I A	K	1.16	1.33	1.00	1.33	1.42	1.33	1.75	1.17	1.75	1.75	1.50	1.75	1.83	1.17	1.25	1.42	1.17	1.42
	NK	1.43	1.43	1.00	1.71	1.86	1.29	1.43	1.29	2.71	1.17	1.57	1.43	1.71	1.29	1.29	2.00	1.71	1.55
II B	K	1.50	1.20	1.00	1.40	1.20	1.50	2.00	1.80	2.40	1.80	1.70	2.00	1.70	1.40	1.50	2.10	1.20	1.62
	NK	1.27	1.55	1.00	1.75	1.82	1.64	2.00	1.73	2.18	1.73	2.00	2.00	1.64	1.64	1.91	2.18	1.55	1.74
II	K	1.75	1.79	1.39	1.86	1.64	1.61	1.75	1.70	1.82	1.82	1.39	1.39	1.79	1.25	1.79	1.82	1.29	1.64
	NK	1.82	2.00	1.54	2.09	1.63	1.54	1.82	1.82	2.09	1.82	2.00	1.72	1.64	1.55	1.63	2.18	1.73	1.80
III	K	1.68	1.23	1.50	1.36	1.36	1.32	1.82	1.45	1.59	1.32	1.36	1.50	1.77	1.00	1.82	1.77	1.41	1.49
	NK	2.00	1.17	1.50	1.58	1.50	1.58	1.83	2.00	1.75	1.50	1.67	1.84	1.67	1.00	1.50	1.92	1.50	1.62
III A	K	1.78	1.56	1.44	1.50	1.06	1.72	2.17	2.22	2.00	1.33	1.39	2.06	1.89	1.39	2.11	2.00	1.67	1.69
	NK	1.75	1.63	1.63	1.63	1.25	2.00	2.25	2.00	2.13	1.75	1.88	2.13	2.38	1.63	2.00	1.75	1.50	1.80
IV	K	1.90	1.57	1.43	1.71	1.33	2.00	1.90	2.05	1.95	1.57	1.90	1.57	1.81	1.52	1.95	2.08	1.57	1.75
	NK	2.00	1.22	1.33	1.55	1.11	1.44	1.33	1.44	2.22	1.77	1.55	1.22	1.77	1.55	1.55	2.11	1.66	1.58
V	K	2.04	1.75	1.54	1.79	1.79	1.79	1.83	1.96	2.00	1.75	1.79	1.38	1.63	1.29	1.42	1.79	1.17	1.69
	NK	2.33	1.55	2.11	1.88	1.88	1.55	1.55	2.11	2.55	2.11	2.11	1.88	1.77	1.33	1.67	1.88	1.33	1.86
VI B	K	1.56	1.16	1.08	1.56	1.32	1.52	1.56	1.72	1.96	1.52	1.64	1.48	1.16	1.16	1.64	1.80	1.48	1.49
	NK	2.00	1.13	1.13	1.75	1.13	1.75	1.75	2.00	2.13	1.75	2.00	2.00	1.38	1.00	1.38	2.38	1.63	1.66
VI	K	1.83	1.00	1.17	1.75	1.75	1.25	1.17	1.50	1.75	1.58	1.50	1.17	1.33	1.00	1.50	1.75	1.75	1.37
	NK	1.88	1.00	1.24	1.82	1.71	1.35	1.41	1.65	1.77	1.59	1.47	1.24	1.12	1.59	1.59	1.77	1.12	1.49
VII	K	2.00	1.50	1.38	1.75	1.44	1.63	1.69	1.69	1.81	1.69	1.75	1.56	2.00	1.13	1.31	1.56	1.56	1.62
	NK	2.24	1.29	1.71	2.05	1.71	1.76	1.57	1.81	2.05	1.86	1.81	1.43	1.62	1.13	1.29	2.05	1.71	1.71
VIII	K	1.68	2.00	1.84	1.42	1.37	1.79	1.95	1.84	1.74	1.63	1.84	1.89	2.00	1.26	1.79	1.58	1.32	1.69
	NK	1.86	1.86	1.82	1.59	1.55	1.86	1.86	1.91	2.05	1.91	1.82	1.77	1.73	1.27	1.50	1.73	1.36	1.74

TABLE III

TABLE III

	Self-confidence		Moral Attitude		Love of Nature		Ability to Mix		Friendliness		Interest		Attention		Ability to Think		Originality	
	K	NK	K	NK	K	NK	K	NK	K	NK	K	NK	N	NK	K	NK	K	NK
I	0.05	....	.....	0.07	0.02	....	0.34	....	0.24	....	.....	0.26	....	0.18	.....	0.27	0.14	....
I A	.27	....	0.10	.....	0	0	.38	....	.44	....	.....	.04	....	.32	.12	....	.96	....
II B	.....	0.23	.35	.....	0	0	.33	....	.62	....	0.14	....	....	.10	.....	.07	.....	0.22
II	.07	....	.21	.....	.15	....	.23	....	.....	0.01	.....	.07	0.07	.....	.12	....	.27	....
III	.32	....	.....	.06	0	0	.22	....	.14	....	.26	....	.01	.....	.55	....	.16	....
III A	.....	.03	.07	.....	.19	....	.13	....	.19	....	.28	....	.08	.....	.....	.22	.13	....
IV	.10	....	.....	.35	.....	0.10	.....	0.16	.....	.22	.....	.56	....	.57	.....	.61	.27	....
V	.29	....	.....	.20	.57	....	.09	....	.09	....	.....	.24	....	.28	.15	....	.55	....
VI B	.44	....	.....	.03	.05	....	.19	....	.....	.19	.23	....	.19	.....	.28	....	.17	....
VI	.05	....	0	0	.07	....	.07	....	.....	.14	.10	....	.24	.....	.15	....	.02	....
VII	.24	....	.....	.21	.33	....	.30	....	.27	....	.13	....	....	.12	.12	....	.24	....
VIII	.18	....	.....	.14	.....	.02	.17	....	.18	....	.07	....	....	.09	.07	....	.31	....
Summary	2.01	0.26	0.73	1.06	1.38	0.12	2.45	0.16	2.17	0.46	1.21	1.17	0.59	1.66	1.56	1.17	3.22	0.22
Difference	1.75K	....	.....	0.33NK	1.26K	....	2.29K	....	1.71K	....	0.04K	....	....	1.07NK	0.39K	....	3.00K	....

TABLE III—*Continued*

	Observation		Response to Ideas		Response to Directions		Manual Ability		Cleanliness		Orderliness		Oral Expression		Ability to Play		Summary	
	K	NK	K	NK	K	NK	N	NK	K	NK	N	NK	N	NK	K	NK	K	NK
I	0.05	....	0.17	....	.....	0.26	0.29	.....	.....	0.41	....	0.44	.....	0.66	0.23	....	.....	0.15
I A	.....	0.58	.07	....	.....	.32	....	0.12	0.12	....	0.04	.....	0.58	....	.54	....	0.13	....
II B	.....	.07	.30	....	0	0	....	.06	.24	....	.41	.....	.08	....	.35	....	.12	....
II	0	0	.61	....	0.33	....	....	.15	.30	....	....	.16	.36	....	.44	....	.16	....
III	.18	....	.31	....	.34	....	....	.10	0	0	....	.32	.15	....	.09	....	.13	....
III A	.42	....	.49	....	.07	....	.49	.....	.24	....	....	.11	.....	.25	.....	0.17	.15	....
IV	.20	....	.....	0.35	.....	.35	....	.04	.03	....	....	.40	.02	....	.09	....	.....	.17
V	.36	....	.32	....	.50	....	.14	.....	.04	....	.25	.....	.09	....	.16	....	.17	....
VI B	.23	....	.36	....	.52	....	.22	.....	.....	.16	....	.26	.58	....	.15	....	.17	....
VI	.01	....	.....	.03	.07	....	....	.21	.59	....	.09	.....	.02	....	.....	.63	.12	....
VII	.17	....	.06	....	.....	.13	....	.38	0	0	....	.02	.49	....	.15	....	.09	....
VIII	.28	....	.....	.02	.....	.12	....	.37	.01	....	....	.29	.15	....	.04	....	.05	....
Summary	1.90	0.65	2.69	0.40	1.83	1.18	1.14	1.43	1.57	0.57	0.79	2.00	2.52	0.91	2.24	0.80	1.29	0.32
Difference	1.25K	....	2.29K	....	0.65K	....	....	0.29NK	1.00K	....	....	1.21NK	1.61K	....	1.44K	....	0.97K	....

to assume more native ability among the 235 K than among the 145 NK. Neither would the fact that there are more K affect the averages.

In Table IV we have the averages of the same children in their school subjects given by the same teachers. The grades in one subject, arithmetic, are also given. This table shows a difference of 0.9 in average and 0.6 in arithmetic in favor of K.

TABLE IV

Grade	Average K Pupils	Average NK Pupils	Math. K Pupils	Math. NK Pupils	Number K Pupils	Number NK Pupils
	Per Cent	Per Cent	Per Cent	Per Cent		
I	82	81	82	83	32	5
I A	83	83	84	84	22	18
II	84	84	83	84	28	11
III	87	85	87	85	22	12
III A	79	78	68	70	18	8
IV	84	85	78	80	21	9
V	81	80	77	77	19	14
VI B	81	78	76	68	26	8
VI	86	85	86	85	12	17
VII	88	86	87	83	16	21
VIII	85	85	78	81	19	22
Totals	83.6	82.7	80.6	80	235	145
Difference in favor of K	0.9	.....	0.6	.....	.....	.....

The school grades show no such variation in favor of K as the record of the characteristics. It will be seen that the following qualities would have great bearing on the lives of the individuals but would not be observable in their influence on school subjects: ability to mix, friendliness, cleanliness, ability to play. The following would affect school grades only indirectly and do not have the appreciation they should in school work: self-confidence, moral attitude, love of nature, originality, observation. The qualities in which the K excel that would be expected to affect school grades are interest, ability to think, response to ideas, response to directions, and oral expression.

The study shows a decided advantage for K in qualities which make for richer, larger living. If such qualities as love of nature,

TABLE V

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Av.
Grade III, 1914	22K	1.68	1.23	1.50	1.36	1.36	1.32	1.82	1.45	1.59	1.32	1.36	1.50	1.77	1.00	1.82	1.77	1.41	1.49
	12NK	2.00	1.17	1.50	1.58	1.50	1.58	1.83	2.00	1.79	1.50	1.67	1.84	1.67	1.00	1.50	1.92	1.50	1.62
Grade III, 1915	18K	1.61	1.11	1.28	1.11	1.17	1.22	1.55	1.44	1.50	1.44	1.33	1.44	1.50	1.00	1.72	1.67	1.17	1.37
	11NK	1.55	1.00	1.18	1.18	1.18	1.27	1.73	1.55	1.45	1.36	1.36	1.36	1.45	1.00	1.27	1.73	1.27	1.35
Grade VII, 1914	16K	2.00	1.50	1.38	1.75	1.44	1.63	1.69	1.69	1.81	1.69	1.75	1.56	2.00	1.13	1.31	1.56	1.56	1.62
	21NK	2.24	1.29	1.71	2.05	1.71	1.76	1.57	1.81	2.05	1.86	1.81	1.43	1.62	1.13	1.29	2.05	1.71	1.71
Grade VII, 1915	17K	1.76	1.35	1.59	1.88	1.41	1.59	1.76	1.76	1.82	1.59	1.65	1.59	1.53	1.12	1.35	1.47	1.76	1.59
	15NK	1.93	1.40	2.13	1.80	1.60	1.80	1.87	1.80	1.73	1.73	1.80	1.33	1.53	1.06	1.40	2.00	1.73	1.68

sociability, originality, observation, response to ideas, oral expression, ability to think, and ability to play have no significance in our grade schools, our curricula and bases of measurement should be readjusted. The grade schools are evidently not close enough to vital experiences of life.

The NK show an advantage in manual ability, in orderliness, in moral attitude, and in attention, all of which have been claimed as especial aims of the kindergarten. If in these respects improvement is needed, I am sure the kindergarteners would be the first to seek means to arrive at it.

EXPLANATION OF TABLE V

To check up the results of this work it seemed desirable to repeat the judgments at a later date. It so happened that a year later two of the teachers were teaching the same groups as in 1914, when the study was first tabulated. These were asked to repeat the process, leaving out new children not considered before. The teachers reported that their judgments would differ considerably because of their better knowledge of the children. There is some variation, too, because the groups are not identical, some having moved away.

In Grade III the judgment is reversed in four qualities: self-confidence, originality, observation, and response to directions. Even the average is reversed, although NK surpass K by only 0.02 of a point. It will be observed that all of the reversals were changed by only a small decimal of a point. In thirteen qualities the conclusion is the same as that reached in 1914.

In Grade VII there are reversals of five qualities: moral attitude, ability to mix, originality, orderliness, and manual ability, but the averages vary in the same order and by exactly the same difference, 0.09.

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GINN & CO., BOSTON

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Young and Field Literary Readers. By ELLA FLAGG YOUNG and WALTER TAYLOR FIELD. Illustrated. Cloth.

Book Three, pp. 288, $0.48.

Book Four, pp. 320, $0.52.

Intermediate Song Reader. By JAMES M. MCLAUGHLIN. Cloth. Pp. 128. $0.32.

Graded Writing Textbooks. Book Two. By ALBERT W. CLARK. Paper. Pp. 32. $1.25 per dozen.

HENRY ALTEMUS CO., PHILADELPHIA

Bed-Time Bible Stories for Little Children. By GERTRUDE SMITH. Illustrated. Cloth. Pp. 192. $0.50.

HENRY HOLT & CO., NEW YORK

New Practice Book in English Composition. By ALFRED M. HITCHCOCK. Illustrated. Cloth. Pp. 226. $0.80.

Sir Roger de Coverley Papers. From the Spectator. Edited by NATHANIEL EDWARD GRIFFIN. Cloth. Pp. 204.

HOUGHTON MIFFLIN CO., BOSTON

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Vocational Arithmetic. By H. D. VINCENT. Cloth. Pp. 126. $0.55 net.

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In Toyland. By LOUISE ROBINSON. Illustrated. Cloth. Pp. 127. $0.40.

Pretty Polly Flinders. By MARY FRANCES BLAISDELL. Illustrated. Cloth. Pp. 188. $0.40.

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A Teacher's Manual. Accompanying the Sanford American History Maps. By ALBERT H. SANFORD, M.A. Paper. Pp. 95.

J. B. LIPPINCOTT CO., PHILADELPHIA

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Lippincott's New Picture Composition Book. By J. BERG ESENWEIN. Illustrated. Cloth. Pp. 111. $0.50.

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[1] Abbreviations.—Am. School, American School; Atlan., Atlantic Monthly; Cent., Century; Educa., Education; Educa. R., Educational Review; El. School J., Elementary School Journal; English J., English Journal; Harp. W., Harper's Weekly; J. of Educa. (Bost.), Journal of Education (Boston); Man. Train. and Voca. Educa., Manual Training and Vocational Education; Pop. Sci. Mo., Popular Science Monthly; Psychol. Clinic, Psychological Clinic; R. of Rs., Review of Reviews; School R., School Review; Sci. Am., Scientific American; Sci. Am. Sup., Scientific American Supplement.

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